How not to create a monster, p 617

MTAS or a tale of evidence heedless medicine

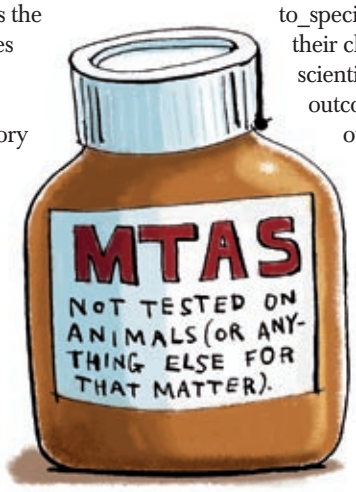
PERSONAL VIEW **Parashkev Nachev**

Evidence based medicine has completely transformed our profession to the extent to which no doctor—not even the most cavalier one—would countenance a change to current practice that has not been justified by a rigorous comparison between the old and the new. What constitutes a rigorous comparison is well established; indeed, agreement on the principles of designing and reporting therapeutic trials is so widespread that all good journals refuse to publish any study that does not fit the standard template.

One might therefore have thought that the response of any competent physician to what I am about to describe would be predictably derisive. Imagine that the government proposed a radically new treatment (let's call it Effupin) for a complex and important condition that has hitherto been treated in an imperfect but largely satisfactory way. Effupin's mode of action is unknown: its use is motivated by anecdotal reports from veterinary practice. It has never been tested with regard to any accepted primary outcome measures, and such evidence as exists in its favour comes from barely a handful of small open-label studies that look at indicators only speculatively related to outcomes.

Imagine further that Effupin has been designed by a company that stands to benefit directly from its widespread adoption. The government has appointed the company on the basis of a process the details of which it refuses to make public. Finally, the government insists that Effupin is compulsory and that no clinician is individually allowed to use any alternative.

Now one would not have to be an expert in evidence based medicine to recognise the fatal flaws in such a proposal. And yet this is precisely the kind of error that the leaders of our profession have committed.



MALCOLM WILLETT

I am speaking, of course, of the United Kingdom's new Medical Training and Applications Service (MTAS) for the selection of specialist trainees. Not the website, or the technical glitches that have occupied such a disproportionate amount of print in the lay press, but the fundamental principles of selection on which it is based.

The criteria and procedure for selection in MTAS were principally designed by a handful of organisational psychologists engaged through their consulting firm, Work Psychology Partnership, for a fee of £92 950 (€134 000; $186 000) excluding value added tax (**www.publications.parliament.uk/pa/cm200607/cmhansrd/cm070423/text/70423w0020.htm**). The Department of Health has refused to reveal how they came to be appointed (a copy of the DoH's refusal to release this information under the Freedom of Information Act is available from the author). None of the known members of Work Psychology Partnership has any medical qualifications (www.workpsychologypartnership.com). The selection methods they have developed have never been used to select specialist trainees. The superiority of their methods is arbitrarily assumed—indeed their promotional literature suggests that the only reason why doctors may object to them is a "resistance to change" (www.mmc360.com/documents/recruitment_to_specialist_training.pdf). Unsurprisingly, their claims are not supported by any scientific studies that examine the critical outcome measures—it could hardly be otherwise given that no such study can be carried out in less than the time it takes to train a specialist. Instead, we have a series of essentially anecdotal reports, citing favourable feedback from key "stakeholders." That the authors do not discriminate between anecdote and evidence is obvious from the proposed selection process itself, in which the greatest weight is given not to demonstrable achievements, but to apocryphal tales from the applicant's clinical career.

If the evidence falls disastrously short of the standards to which we are accustomed, the ethics of its publication are in my view arguably kindred. Despite the obvious potential conflict of interest, Professor Fiona Patterson, apparently the principal agent of Work Psychology Partnership in this project, does not mention her consulting firm on her academic website. By contrast, every slide of the material prepared for the Department of Health I have seen is emblazoned with the Work Psychology Partnership logo (www.mmc360.com/documents/recruitment_to_specialist_training.pdf).

As I have demonstrated, the failure was not so much foreseeable as glaring—from the outset. And yet, the leaders of our profession failed to act when there was still time to do so. The maintenance of professional standards in specialist medicine is the responsibility of the royal colleges: what else do they exist for? And let us be clear that the prinicpal issue here is professional standards, not the welfare of junior doctors, as the BMA tends to present it. Monstrous though their loss is, the hundreds of excellent doctors unfairly denied a career in British medicine will find success abroad or in some alternative walk of life.

It is hard to comprehend how the royal colleges could have allowed this system to be implemented without any apparent resistance. Either they were coerced into it, or they behaved in a grossly incompetent manner by not intervening. If it was the former, then the colleges owe it to the past and future of medicine in this country to declare that they were coerced by the government, whatever the consequences might be. If it was the latter, then in my view they are clearly unfit to represent our profession.

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See also News p 582, Head to head p 590, and Analysis p 593

Old docs rock

FROM THE FRONTLINE
Des Spence

The sound of the hairdryer blasted above the tape machine. I gagged on hairspray, and my hands were tacky with hair gel—having "big hair" was high maintenance. Rain was an ever present danger. These were the days when the hardest boys in school wore make up and tucked pink Pringle jumpers into their stretch jeans, and no one sniggered. This was the briefest period of our lives and yet the most vivid: youth. But the idiotic dreams of youth soon give way to responsibility and commitment. All that remains are embarrassing photos and a soundtrack of pop songs. Now we are told that youth is extending into middle age, but it is more than that: youth has become a god and must be worshipped.

Nostalgia is nature's gift to humanity to make the past look brighter than it actually was, giving us the energy to trudge on with the misery of our lives. So, recently in a cold and wet field on the Ayrshire coast, 15 000 fans poured into the "Retrofest" 1980s pop revival festival—my wife had insisted that we go. The line-up was a galaxy of pop fluff and fashion criminals that I would have paid not to see in the 1980s: Curiosity Killed the Cat (the ridiculous hat), Nick Heyward (the jumper tucked into jeans), Howard Jones (the vegetarian); Kajagoogoo (the mullet hairdo), to name but a few.

The crowd gasped at the middle aged men and women who stood before them. Likewise the stars gazed out at what must have seemed the world's largest parent teacher association meeting. But shiraz wine goggles soon adjusted our vision, and the pounds and the years came rolling off. My prejudices were unkind, for free of youthful vanity the performers were more accomplished musicians. They rocked—talent is not ageist.

Society's tasteless fashion for youth devalues older people, and this even operates in the NHS. As with their musical counterparts, many NHS staff may have lost the sparks of youth, but their talent continues to smoulder, warming health care with their maturity, experience, and consistent performance. We need to protect older NHS staff from the sniper of early retirement by acknowledging their talent and retaining them within the workforce. Soon all the new young "all As" trainee doctors will try to storm the medical stage with their silly haircuts and stupid certainty, but remember: old docs still rock.

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Armies

THE BIGGER PICTURE
Mary E Black

I have mixed feelings about armies. In 1970s Belfast, we Catholic children welcomed British soldiers as our saviours till the tide of opinion changed and we were told to ignore them as they passed by on street patrols. In fake military-style justice thousands of young people had brutal punishment beatings from Northern Irish paramilitaries—a big number for a small country. In the Royal Victoria Hospital I patched up a young father, shot through the spine by an 18 year old from an impoverished housing estate in Glasgow; given an army uniform and a gun he had simply lost it one afternoon.

I grew up near Long Kesh, a dark and secretive place where the innocent, the politically motivated, and the murderous were interned for years without trial and where the prison authorities used the "five techniques" of wall-standing, hooding, subjection to white noise, and deprivation of food and drink. Now, the internet, global news coverage, and documentary films shine light on Guantanamo Bay, follow the British Navy personnel taken prisoner by Iran this year, and show us the rape and murder by US soldiers of a 14 year girl in Iraq. Armies and their workings are more familiar. We can have virtual seats on the world's international front lines, and we can choose to watch, to engage . . . or not.

It was a member of the French Foreign Legion, an abscondee from Belfast, who would let me into the UN compound in Bosnia after curfew. It was the British soldiers in UNPROFOR (the United Nations Protection Force) who would "commission" items for my UN medical evacuation unit in Sarajevo. Decent, practical men all, but I never did ask them what their units had done in Northern Ireland. For armies make me nervous. Armies put people into structures where the individual can be sacrificed for the greater good, where violence can be central to the mission.

Time moves on. Long Kesh may become an International Centre for Conflict Transformation, a national sports centre, and residential and commercial units. I teach with British Army colleagues on planning and logistics in complex emergencies, as they do both so well. In Belgrade, I bring my children each year to Anzac day, Remembrance Sunday, and the French equivalent, bearing the framed photograph of my grandfather in his British Army medical officer uniform, a gas survivor from the trenches in the first world war. We talk about my aunt, a member of the Women's Royal Naval Service in the second world war. We wear poppies and lay flowers on the graves of those brave, scared, and lonely soldiers who died far away from home. Soldiers who had mothers with mixed feelings.

And my prayer? May I never have to watch my children march off to war. May my children do anything else to save the world but pull a trigger.

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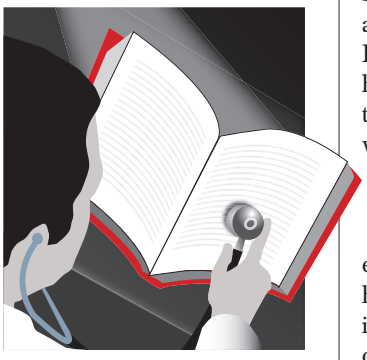
That's life—and death

BETWEEN THE LINES
Theodore Dalrymple



It is unlikely that Hume was merely hard hearted when he wrote so little of the Black Death

What fails to happen is sometimes as important as what does happen. This is most famously (and felicitously) expressed in Dr Conan Doyle's story *Silver Blaze*:

"Is there anything to which you would like to draw my attention?"

"To the curious incident of the dog in the night-time."

"The dog did nothing in the night-time."

"That was the curious incident," remarked Sherlock Holmes.

Likewise, as every married couple knows, what is unsaid is often as important as what is said. And what historians omit from, or do not emphasise in, their accounts of the past tells us much about the mentality of their own times.

In the philosopher David Hume's *The History of England from the Invasion of Julius Caesar to the Revolution of 1688*, we are told that in the year 1349, in the middle of the Hundred Years' War, Edward III instituted the Order of the Garter with considerable fanfare. But, Hume continues: " . . . a sudden damp was thrown over the festivity . . . by a destructive pestilence which invaded the kingdom, as well as the rest of Europe, and is computed to have swept away nearly a third of the inhabitants in every country which it attacked. It was probably more fatal in great cities than in the country; and above fifty thousand souls are said to have perished in London alone . . . So great a calamity, more than the pacific dispositions of the princes, served to maintain and prolong the peace between France and England."

And that, in effect, is the only thing Hume has to say on the subject of an epidemic that caused the death of a third of the population.

This is not a view of history that would find much favour today. We live in an age of obsession with health, when the deaths of a few people are sufficient to spark a panic worldwide. How could Hume have passed over the Black Death with such apparent unconcern and equanimity?

One possible explanation is that he was callous and indifferent to the fate of the great mass of mankind. I do not think this is very likely, however, for few people who knew him had anything bad to say of Hume. In his letter to William Strachan about their mutual friend, Adam Smith says: "Upon the whole, I have always considered him [Hume] . . . as approaching as nearly the idea of a perfectly wise and virtuous man, as perhaps the nature of human frailty will admit."

Since both Hume and Smith wrote feelingly of the benefits of human sympathy, and made it indeed the basis of their moral philosophy, it is unlikely that Hume was merely hard hearted when he wrote so little of the Black Death.

I remember reading a book a long time ago about the London of Hume's day by Dorothy M George. A single statistic so startled me that I have never forgotten it: that a half of all children in the London of that time died before the age of 5. If it had not been for the constant influx of people from outside the city, the population of London would have fallen rather than risen.

In these circumstances, everyone in Hume's day must have had a close personal acquaintance with death, and therefore the events of 1349 must have seemed correspondingly less terrible than to us, who have so much difficulty in grasping the fact of our own mortality.

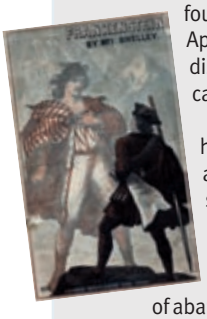
Theodore Dalrymple is a writer and retired doctor

MEDICAL CLASSICS

Frankenstein: or, The Modern Prometheus By Mary Shelley

First published 1818

Try to put all images of crackling Van de Graaff generators and lumbering, moaning, bolt necked monsters from your mind. Nearly 200 years of oversimplification and spoofs have completely overshadowed the original version of this tale. So let's set the record straight. While still a student of natural philosophy Victor Frankenstein had an epiphany. Through studying death and decay he discovers "the cause of generation and life," becoming himself "capable of bestowing animation on lifeless matter." Although now this would probably first be demonstrated on nematodes, then drosophila, Frankenstein goes straight for the big one: creating a man. And although the raw materials for the project were derived from "the dissecting room and the slaughter house"—this is about creation, not reanimation. To avoid fiddly surgery he builds the creature on a massive scale, some 8 feet (2.4 m) in height. Frankenstein is initially just like any expectant parent, boasting of the beautiful features selected for his creation. Yet at the moment life is given, of birth, as it were—and the creature although massive is initially described like a baby, fixing its eyes on its father, grinning, and holding out its hand to him—Frankenstein rejects it. What he had so recently found beautiful he suddenly finds hideous. Appalled, he runs away, returning later to discover that the creature, which he now calls a monster, has disappeared.



After six months he encounters his creature again. It can now move across harsh terrain with superhuman speed and converse eloquently in French. Is Frankenstein proud of his offspring? Does he seek a reconciliation or forgiveness for his act of abandonment? No. He treats his creature as everyone else does, returning its acts of kindness and requests for love with fear and loathing—a still relevant comment on the trials of many of those with disability and disfigurement today. What follows is an escalating cycle of pursuit and revenge on Frankenstein and his family by the creature he has disowned. For the real story of Frankenstein is not that of an experiment gone wrong. The creature works wonderfully well; he is a superman. It is not that of man being punished for encroaching on the territory of the gods—although Frankenstein would claim this was indeed the case. Instead it is about recognising that we are responsible for all our children, good and bad, biological, adopted, scientific, and medical.

Frankenstein's outright rejection of his creation, denying it even a name, twisted its basic goodness into hateful barbarity. This is something to think about when treatments go wrong and patients or relatives look to us for answers and support. Or when trainees are heading off the rails and need more intensive mentoring. Frankenstein teaches us that to get the best possible outcome from anything that has involved our creative input requires elements of responsible care, love, and nurturing. And if we do this we will not create monsters.

Ross Camidge, assistant professor of medicine/oncology, University of Colorado Cancer Center, Denver
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REVIEW OF THE WEEK

Doping in sport—a warning from history

East German athletes who were doped to win gold medals in the 1976 Olympics now struggle with chronic health problems. **Domhnall Macauley** reviews a new documentary

The Great Olympic Drug Scandal: Revealed
Channel Five, September 18, 8 pm
Rating: ★★☆☆

Sport is tough, mean, and uncompromising. With national, social, and political gains for an emerging nation in the postwar era, sport was an obvious playground to express superiority. The German Democratic Republic looked coldly at what was required and did it. Potential medal winners were selected at an early age and prepared systematically. Coaches were rewarded by performance, and every aspect of the athletes' progress was recorded. East German athletes were prepared, organised, and comprehensively monitored throughout their sporting career. It was no surprise, therefore, that systematic drug use was part of this preparation. In 1974 "sports theme plan 1425" began with the aim of achieving medals in the 1976 Olympics in Montreal. The East German team won 40 gold medals, and its female swimmers, in particular, were dominant, winning 11 of the 13 events.

This programme charted the lives of individual athletes and the price they paid for sporting achievement. Ute Krause and Rica Reinisch were swimmers, and Katharina Bullin was a volleyball player. Ute described their training, the physiological tests, the vitamin drinks, and the pills they were given. She also described the changes to her body and how this eventually led to an eating disorder and her leaving the sport.

Rica was an incredibly successful athlete, winning three gold medals in swimming at the Moscow Olympics in 1980 aged 15. Athletes were given oral anabolic steroids until the time of competition but were injected with testosterone during competition as it was then undetectable. She initially refused to have the injections before the relay event but was pressurised by her coach. Shortly afterwards she developed gynaecological problems, and the following year left the sport on the medical advice of a gynaecologist from outside the sporting system.

Katharina also described the androgenic changes to her body, her problems with identity, and how she has now given up trying to disguise her masculine features. She also described the catalogue of injuries sustained and how she is in constant pain and has difficulty walking.

The story of Heide Kreiger was the most dramatic. She won a gold medal as a shot putter at the 1986 European Athletic Championships while taking huge doses of anabolic steroids. This had inevitable androgenic effects. She struggled with her sexuality, dropped out of sport at age 22, changed sex nine years later to become Andreas, and married Ute in 2004.

These were some of the casualties of this remarkable and incredibly successful sporting experiment, and they had little choice but to participate. In some aspects they had a privileged life—opportunity for international travel, valued positions in society, and good living conditions—when average citizens had a basic existence. As in many areas of achievement, it is the personal stories behind the stardom that have the greatest impact.

It is the involuntary and systematic abuse of underage athletes that hits hardest. These athletes, recruited from as young as 10 years old, did not know what medication they were taking and were discouraged from asking. The girls were also given oral contraceptives from an early age.

Sports doctors and coaches were aware of the physical changes caused by doping with anabolic steroids and documented the side effects. Dr Rainer Hartwich, director of clinical research at Jenapharm, where the anabolic steroids were manufactured, pointed out that the coaches and authorities were aware of the problems. The sports doctors had signed a confidentiality agreement, monitored by the East German secret police, the Stasi. They made no protest, and 70 of them were later convicted of illegal doping.

For a brief moment, we had a glimpse of a particularly interesting issue—the role of these doctors and their ethical position and responsibilities. They participated in the doping "to earn money, be important, to be someone." One of the few doctors to speak out openly, Dr Ulrich Sünder, an area sports doctor in Berlin from 1973-90, said that they were afraid they would be struck off as what they were doing was "against doctors' ethics and the principles of medical care." He thought they got off relatively lightly. But, all too quickly, the moment passed, and we were left wondering where those doctors are now and how they feel about their role.

What this programme described is history. Hidden in the small print are the brief footnotes that record the flotsam and jetsam of top sport, the wasted lives of some athletes and early deaths due to doping. Perhaps it is a little unfair to judge history by current standards. But doping remains a part of sport. It may not be as organised and systematic on a national level, but every new season brings further reports of athletes testing positive for drugs. How many doped athletes will there be in Beijing and in London? What price will they pay to satisfy demands that their performances be faster, higher, and longer?

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Athletes, recruited from as young as 10 years old, did not know what medication they were taking and were discouraged from asking

DPA/DPA/PA

East Germany's Rica Reinisch on her way to winning gold in the women's 100 metre backstroke, Moscow Olympics, 1980